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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/827,393	04/05/2001	Koji Shimada	10873.692US01	6367

7590

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EXAMINER

PERRY, ANTHONY T

ART UNIT

PAPER NUMBER

2879

DATE MAILED: 05/07/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/827,393

Applicant(s)

SHIMADA ET AL.

Examiner

Anthony T Perry

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 March 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) 4-6 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 4/08/01 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Response to Amendment

The amendment filed on 3/31/03, has been entered and acknowledged by the Examiner.

Cancellation of claims 4-6 has been entered.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Youn et al. (US 6,144,149) in view of Jeong et al. (US 5,298,832).

Regarding claims 1-2, Youn discloses a cathode ray tube comprising a shadow mask 112 fixed to a mask frame 120 and an inner magnetic shield 122 supported by the mask frame 120 (see Fig. 4). The Youn reference does not specifically state an electron shield, however as shown in Fig. 4 the mask frame 120 is elongated on a front end portion of the electron beam side of the mask frame 120b so as to act as an electron shield. The portion 120b of the mask frame extends in the direction of the electron beam side past the inner magnetic shield. Fig. 3 of the Jeong reference further supports the use of a mask frame 4 which also acts as an electron shield (col. 4, lines 1-8). The recitation "at least a part of the electron shield has a smaller anhysteretic magnetic permeability than the shadow mask, the mask frame, and the inner magnetic shield when an applied magnetic field is 800 A/m (10 Oe)" is considered to be functional language since no structural limitation is stated. However, the specification of the present invention teaches that an electron shield with a plurality of holes has a smaller anhysteretic magnetic

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permeability than another part of the electron shield when an applied magnetic field is 800 A/m (10 Oe). Youn discloses, in Fig. 5, a mask frame 120 with a plurality of holes 121a which are formed on the flange portion 120b (the portion that act as an electron shield). Youn teaches that it is well known that the holes 121a have an effect of compensating for magnetic influence (col. 3, lines 3-10). Therefore, at least one part of the electron shield has a smaller anhysteretic magnetic permeability than another part of the electron shield as well as the shadow mask, the mask frame, and the inner magnetic shield when an applied magnetic field is 800 A/m (10 Oe).

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Youn et al. (US 6,144,149) in view of Jeong et al. (US 5,298,832) as applied to claims 1-2 in further view of Kokubu et al. (US 4,931,690).

Regarding claim 3, Youn does not specifically teach the use of an electron shield formed of a separate member from the mask frame. However, Fig 2. of the Kokubu reference teaches an electron shield 6 formed of a member different from the mask frame 4 so as to protrude beyond a front end portion on an electron beam side of the mask frame 4. Youn teaches that holes can be used to compensate for magnetic influence (col. 3, lines 5-10). Accordingly, one of ordinary skill in the art would have found it obvious at the time the invention was made to have included holes in the separate electron shield member of Kokubu to compensate for magnetic influence so that the electron beam can maintain the trajectory thereof as designed originally, improving the quality of the image.

Furthermore, it is noted that the applicant's specific limitation of the electron shield being formed of a separate member different than that of the mask frame, does not solve any of the stated problems or yield any unexpected result that is not within the scope of the teachings applied. Therefore it is considered to be a matter of choice, which a person of ordinary skill in the art would have found obvious to select any type of electron shield (integral with the mask

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frame or separate) as long as a part of the electron shield has a smaller anhysteretic magnetic permeability than another part of the electron shield, the shadow mask, the mask frame, and the inner magnetic shield when an applied magnetic field is 800 A/m (10 Oe).

Response to Arguments

The Jeong reference was used simply as evidence that part of the mask frame of the Youn reference serves the purpose of an electron shield. No combination of the references was used in the rejection of claims 1-2. The argument that the holes cannot be located in the part of the mask frame that functions as the electron shield seems to contradict the teachings of the present application. Fig. 8 of the current application shows the electron shield 33 being formed integrally with the mask frame 32 having a hole 9 in the part of the mask frame that functions as the electron shield.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to *Anthony Perry* whose telephone number is (703) 305-1799. The examiner can normally be reached between the hours of 9:00AM to 5:30PM Monday thru Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel, can be reached on (703) 305-4794. The fax phone number for this Group is (703) 308-7382.

Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to [Anthony.perry@uspto.gov].

All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.



Anthony Perry
Patent Examiner
Art Unit 2879
April 28, 2003



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